

Co/c

10/ 675441

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT : Timothy Chen, et al.

FOR : METHOD AND APPARATUS FOR A
UNIDIRECTIONAL SWITCHING,
CURRENT LIMITED CUTOFF CIRCUIT
FOR AN ELECTRONIC BALLAST

PATENT NO. : 6,936,970 B2

ISSUED : Aug. 30, 2005

EXAMINER : David Hung Vu

ART UNIT : 2828

CONFIRMATION NO. : 5632

ATTORNEY DOCKET NO. : 135415
GECZ 2 00677

Certificate
SEP 29 2005
of Correction

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT
FOR PTO MISTAKE (37 C.F.R § 1.322(a))

Commissioner for Patents
ATTN.: CERTIFICATE OF CORRECTIONS BRANCH
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Attached, in duplicate is PTO/SB/44, with at least one copy being suitable for printing.

The exact page and line number where the errors are shown correctly in the application file are: The Examiner's Amendment mailed April 12, 2005 (copy attached).

The exact page and line (or Field) in the printed patent where the error occurs is:

Claim 2 (which should have been canceled), claims 3-6 (which should have been amended and renumbered), and claims 7-20 (which should have been renumbered).

SEP 30 2005

Because the Certificate of Correction relates to a Patent Office mistake, no fee is believed due, however if this is not the case, please charge any and all fees to Deposit Account No. 06-0308.

Please send the Certificate to:

Timothy E. Nauman
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2579

Respectfully submitted,

FAY, SHARPE, FAGAN,
MINNICH & MCKEE, LLP

20 September 2005
Date

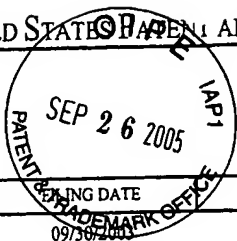
Timothy E. Nauman
Timothy E. Nauman
Reg. No. 32,283
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2579
216-861-5582

CERTIFICATE OF MAILING	
I certify that this Request for Certificate of Correction of Patent for PTO Mistake (37 C.F.R. § 1.322(a)) is being deposited with the United States Postal Service as First Class mail under 37 C.F.R. § 1.8, addressed to: Commissioner for Patents, Attn.: Certificate of Corrections Branch, P.O. Box 1450, Alexandria, VA 22313-1450 on the date indicated below.	
Mary M. Schriner	Date



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILED DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,441	09/30/2005	Timothy Chen	135415 (GECZ 2 00677)	5632

27885 7590 04/12/2005

FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP
1100 SUPERIOR AVENUE, SEVENTH FLOOR
CLEVELAND, OH 44114

EXAMINER

VU, DAVID HUNG

ART UNIT	PAPER NUMBER
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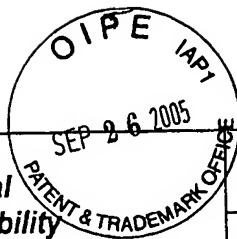
2828

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SEP 30 2005

**Supplemental
Notice of Allowability**



Application No.

10/675,441

Examiner

David Vu

Applicant(s)

CHEN ET AL.

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1 and 3-20.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

David Vu
Primary Examiner
Art Unit: 2828

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Mark Svat on 4/4/2005.

The application has been amended as follows:

Claim 1, line 8, "the lamp." has been changed to ---the lamp, wherein the preheating portion including a unidirectional switch used to control energy delivered to the at least one lamp, the unidirectional switch receiving an ac control signal prior to the ac control signal being converted into a pulsating dc signal.---

Claim 2 has been canceled.

Claim 3, line 1, "claim 2" has been changed to ---claim 1---.

Claim 4, line 1, "claim 2" has been changed to ---claim 1---.

Claim 5, line 1, "claim 2" has been changed to ---claim 1---.

Claim 6, line 1, "claim 2" has been changed to ---claim 1---.

Claim 12, line 6, "been ignited." has been changed to ---been ignited, the preheating including unidirectional switching by a unidirectional switch which receives an ac control signal prior to the ac control signal being converted into a pulsating dc signal.---

Claim 15, line 2, "a unidirectional" has been changed to --- the unidirectional---.

SEP 30 2005

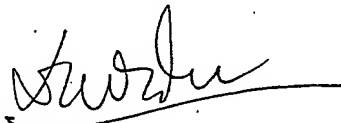
Art Unit: 2828

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Vu whose telephone number is (571) 272-1831.

The examiner can normally be reached on M-F 8am-430pm.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Vu
Primary Examiner
Art Unit 2828

dv

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 3

PATENT NO. : 9,936,970 B2
APPLICATION NO.: 10/675,441
ISSUE DATE : Aug. 30, 2005
INVENTOR(S) : Timothy Chen, et a.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

2. The lamp inverter circuit as set forth in claim 1, wherein the inverter circuit is one of a voltage fed or current fed circuit.
3. The lamp inverter circuit as set forth in claim 1, wherein the unidirectional switch is a field effect transistor.
4. The lamp inverter circuit as set forth in claim 1, wherein the unidirectional switch is a bipolar junction transistor.
5. The lamp inverter circuit as set forth in claim 1, wherein the unidirectional switch detects if one of the lamp and the bus voltage signal has failed.
6. The lamp inverter circuit as set forth in claim 5, wherein the unidirectional switch ignites an auxiliary light source upon detection of failure of one of the bus voltage and the lamp.
7. The lamp inverter circuit as set forth in claim 5, further including a current limiting device to limit a maximum current, upon failure of the lamp.
8. The lamp inverter circuit as set forth in claim 1, wherein the unidirectional switch has a zero voltage turn-on point.
9. The lamp inverter circuit as set forth in claim 1, wherein the unidirectional switch has a zero current turn-off point.
10. The lamp inverter circuit as set forth in claim 1, wherein the preheating portion further includes a second switch, the second switch controlling a turning off of the preheating portion.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Timothy E. Nauman
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP
1100 Superior Ave., 7th Floor

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

SEP 30 2005

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 2 of 3

PATENT NO. : 9,936,970 B2
APPLICATION NO.: 10/675,441
ISSUE DATE : Aug. 30, 2005
INVENTOR(S) : Timothy Chen, et a.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

11. A method of starting a lamp comprising:
receiving a bus voltage signal;
converting the bus voltage signal into an alternating current signal;
preheating the lamp to an ignition temperature;
igniting the lamp; and
inactivating the preheating after the lamp has been ignited, the preheating including unidirectional switching by a unidirectional switch which receives an ac control signal prior to the ac control signal being converted into a pulsating dc signal..
12. The method as set forth in claim 11, further including: detecting a conductive state of the lamp.
13. The method as set forth in claim 11, further including an independent inverter circuit used for the cathodes heating or an auxiliary lamp.
14. The method as set forth in claim 12, wherein the step of detecting includes detecting the conductive state of the lamp with the unidirectional switch, the unidirectional switch having a zero voltage turn-on point and a zero current turn-off point.
15. The method as set forth in claim 11, further including:
detecting if the lamp has failed.
16. The method as set forth in claim 15, further including: igniting an auxiliary lamp upon detection of failure of one of the lamp and/or all of the lamp load.

MAILING ADDRESS OF SENDER (Please do not use customer number below):

FAY, SHARPE, FAGAN, MINNICH & McKEE, LLP
1100 Superior Ave., 7th Floor
Cleveland, Ohio 44114

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PATENT NO. : 9,936,970 B2
APPLICATION NO.: 10/675,441
ISSUE DATE : Aug. 30, 2005
INVENTOR(S) : Timothy Chen, et a.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

17. A method of igniting an auxiliary lamp comprising:
detecting a conductive state of a main lamp in a lamp ballast circuit with a switch that also controls preheating the main lamp;
detecting the integrity of the main lamp; and
switching current flow from the main lamp to the auxiliary lamp in the event of a main lamp failure.

18. The method as set forth in claim 17, further including:
supplying auxiliary power to the auxiliary lamp in the event of lamp failure.

19. The method as set forth in claim 17, wherein the switch has a zero voltage turn-on point and a zero current turn-off point.

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1100 Superior Ave., 7th Floor
Cleveland, Ohio 44114

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: **Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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SEP 30 2005